

Combined Arms Collective Training Facility (PN 001535)
Fort Riley, KS
DACA41-03-B-0004

Questions and Answers (SET No. 2)
12 Sep 03

General Questions

1. What type of connectors is used for patch panels?

Type ST connectors, as stated in spec 16711A section 2.10 Fiber Optic Terminations

2. Are the FOC's for the Option buildings included in the base bid up to the closest manhole?

FOC should not be spliced in manholes. Connection between ROC and Options should be put in when option is constructed.

3. Detail A/SE304 shows the column rebar is to have 4" concrete coverage, but since the pilaster projection is only 4", this means that the column steel will not project into the pilaster. Is this correct or should the pilaster project more than 4"?

The pilaster is correct as shown. The steel should have 4" of cover and the projection should be kept at 4".

4. Drawing ES101, General Note 1

Please clarify. This note indicates that fixtures shown on the site drawings are an estimate for bidding purposes. So are the lighting calcs to be provided post bid? In addition, if post calcs indicate additional fixtures are required will this be a modification by Change Order?

General Note 1 states explicitly what is to be done by the contractor. "LIGHT FIXTURES SHOWN ON SITE DRAWINGS ARE AN ESTIMATE FOR BIDDING PURPOSES ONLY. PROVIDE LIGHTING CALCS FOR LIGHTING DISTRIBUTION TO BE 1/2 FC AVG AND MEET IES STANDARDS." If calculations warrant another fixture we will reevaluate the requirement.

5. Drawing ES504

Please provide conduit sizes for conduits identified as 3, 4, 5, 6, 7, 8, 10, 11, 12, 16 and 17 on the Duct Bank Details and referenced in the Feeder Schedule.

1 1/4" Conduit. (All types listed above meet and fit in 1 1/4" Conduit with 40% fill)

6. Drawing ES504 and ES506

Please advise on how to terminate conduits at manholes and hand holes when minimum depth below grade for a duct bank conduits exceed the 6 foot and 4 foot depths of the manholes and hand holes, respectively. If installed per

the current bid documents, conduit depths will vary from 7 to 9 feet below grade.

Within the vicinity of the manholes bend pipe enough to enter MH & HH side of structure. Bottom of duct bank should be 2' above floor of MH's and 1' above floor for HH's.

7. Please clarify as to whether or not that the top of duct bank concrete can be reduced to a minimum of 18" as per previous bids and construction at Ft. Riley. A reduction to 18" would be a significant cost savings to the Government.

There is to be 6' from top of duct bank concrete to finished grade to meet the requirement for heavy armored vehicular traffic.

8. Please clarify if there is a mistake in the specifications, which specifies only Cast-In-Place Manholes. Pre cast manholes are no more expensive than Cast-In-Place.

There is NOT a mistake in the specifications. All Manholes are to be Cast-In-Place.

9. Drawing ES504

Please clarify what the area below the 6-foot minimum and above the top of the intermediate spacer represents on the "UNDERGROUND DUCT BANK DETAIL FOR TYPICAL CONSTRUCTION" drawing. The drawing only depicts concrete to the top of the intermediate spacer, is this correct?

This is a general detail showing how to build multi-level duct bank and/or single level duct bank. The space in question is an error and should be to the top of the intermediate spacer if only one level of duct bank is used. Standard 3" concrete around conduit applies. The spacer put above the conduit ensures 3" concrete encasement.

10. Are smaller conduits such as 1 1/2 inch required to have a 9-inch on center spacing? Typical USACE projects require a 3" minimum spacing between conduits with a minimum of 3" concrete on each side and covering the top of the duct bank conduits and spacers.

Use appropriate spacers for respective conduit.

11. Drawing F_E-101

There is no size indicated for the Wire way. In addition it is unclear if a divider is to be provided to separate power and comm. Or is a wire way to be provided for each comm and power?

A wire way detail is shown on E-901, but dimensions are wrong. Should be a 6" x 6" wire way with 2" spacing, so the rods are distanced 8" apart.

12. On plan C902 it talks about irrigation and submitting a plan but I cannot find what areas are to be irrigated. Also I would need to know the approximate water pressure and what size lines we would be tying into.

The irrigation gun is shown on CU302. Pressure at gun head is between the ranges 63 and 73 psi depending on upstream demand. CU302 states the line size. Available pressure will sprinkle majority of soccer field, which meets intent.

13. There appears to be some conflicts in the drawings regarding match lines. Drawings ES101 through ES111 have multiple match lines that do not match up on the referenced sheet, leaving areas not covered by either sheet.

Match lines are points of reference and should be used as a guide for aligning sheets. A key is provided that clearly shows site and sheet layouts. Therefore, match lines neither negate nor add to work to be performed. All work to be done is shown on the drawings.

14. On multiple buildings there are panic buttons located at doorways with no description of what function these buttons are to perform. Please clarify the function of these buttons and if the function is the same between all buildings.

Panic Button part number shown on sheet E-001

15. The sprinkler gun specified on C902 is a full circle gun; did you want a ½ circle to just water the field?

The gun is correctly specified as a full circle gun.

16. Where does the electric valve go for the irrigation gun?

The electric valve should be between the controller and the gun as shown on the schematic. Preference is close to the gun as possible.

17. Sheet AE601-603 show several door openings with Note #5. That note is "Blast Door Details REF AE604". There is only a hardware schedule on that sheet. Where is that detail located?

The note is incorrect as the blast door details were inadvertently omitted from the drawing set. The detail was to clarify the installation of the bent steel plate frame "FF" in Detail 2/AE605. Threaded 2" dowels are to be welded to the bent steel plate upon which 2x4 wood members will be attached with countersunk washers and nuts. The weld strength must be great enough to hold up to explosions, yet must break away before the channel and wall are damaged. The 2x4 members provide the surface for the user to attach plywood door hinges and will be replaced by the user as needed during the life of the building. Dwg's call out the bent steel plate but not the 2x4 members, threaded dowels, or countersunk washers and nuts.

18. 1/AE505 - Typical mouse hole. What type of closure is required as indicated in cross section? Is it 1/2" plywood or galvanized steel? What is the configuration of the support channel shown and how is it attached?

The closure is 5/8" plywood supplied by the user. The support channels are similar to those for the windows and should allow the user to insert a 4' x 4' x 5/8" sheet of plywood. The channels attach to the interior face of the wall on the top, bottom, and one side of the opening to secure the plywood for breaching exercises. The preferred configuration is a 2" x 2" x 1/4" steel angle anchored to wall with 1/2" x 2 1/2" anchor bolts at 12" O.C. upon which a 1 1/2" x 1 1/2" x 1/8" steel angle is welded to form the channel.

The recommended thickness for the galvanized steel shutters is 3/16" as they need to secure the building when not in use from unauthorized users.

19. What is gauge of steel shutters? Are any additional specs on shutter hardware forthcoming? (detail 6/AE505 rev #1)

There is no plan for additional specifications regarding hardware. Section 08710 encompasses the shutters. The hinges and hardware are called out in Detail 6/AE505 as "Heavy Use" or as "Heavy Load and Use" and need to be appropriate for the weight of the shutters. The clasp shown in Detail 6/AE505 is fixed to the exterior face of the walls to secure the shutters in the open position during training exercises.